



Assembly Instructions

**COMPLEMENTARY  
ANCHORING SYSTEMS**

**MAPEPLAN® T ANCHORING INOX PLUS  
MAPEPLAN® T ANCHORING INOX LIGHT**

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**MAPEPLAN® T ANCHORING INOX PLUS**  
**MAPEPLAN® T ANCHORING INOX LIGHT**



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# 1. Introduction

MAPEPLAN® T ANCHORING INOX PLUS and MAPEPLAN® T ANCHORING INOX LIGHT are complementary watertight anchoring and sealing systems, developed for fixing solar panels, devices, machinery, structures, channels, pipes, and various components, to be applied on waterproofing made with synthetic membranes MAPEPLAN® T in FPO/TPO flexible polyolefins and, alternatively, on request also on PVC-P waterproofing membranes.

They are used on flat, curved or sloping roofs and in hydraulic works such as tanks and reservoirs.

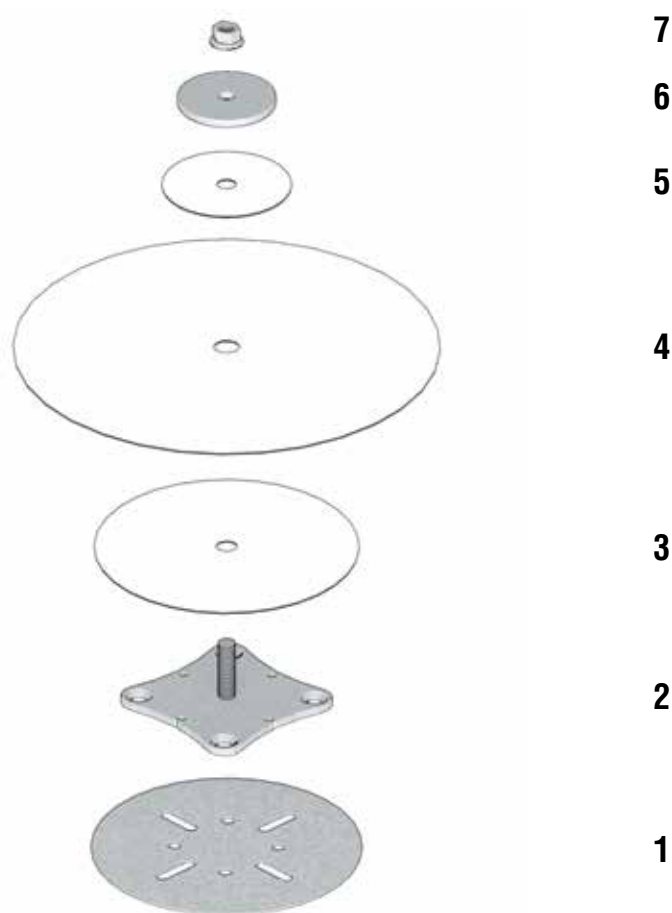
They are designed for use with the usual anchoring elements available on the market (expansion plugs for heavy or light anchors, screws for concrete, self-drilling / self-tapping screws for metal-sheet, clamping screws for wood, flower rivets, etc.). therefore, applicable on all load bearing support structures.

They are available in 2 versions, MAPEPLAN® T ANCHORING INOX PLUS for heavier anchorings and loads and MAPEPLAN® T ANCHORING INOX LIGHT for lighter fastenings.

For installation on supports with low compressive strength, such as insulating panels, a load distribution under-plate in galvanized steel with a diameter of 210 mm is available (to be ordered separately).

**For further information on characteristics and fields of use, refer to the specific MAPEPLAN® T ANCHORING INOX PLUS / LIGHT technical data sheet.**

## 2. Mapeplan® T Anchoring Inox Plus



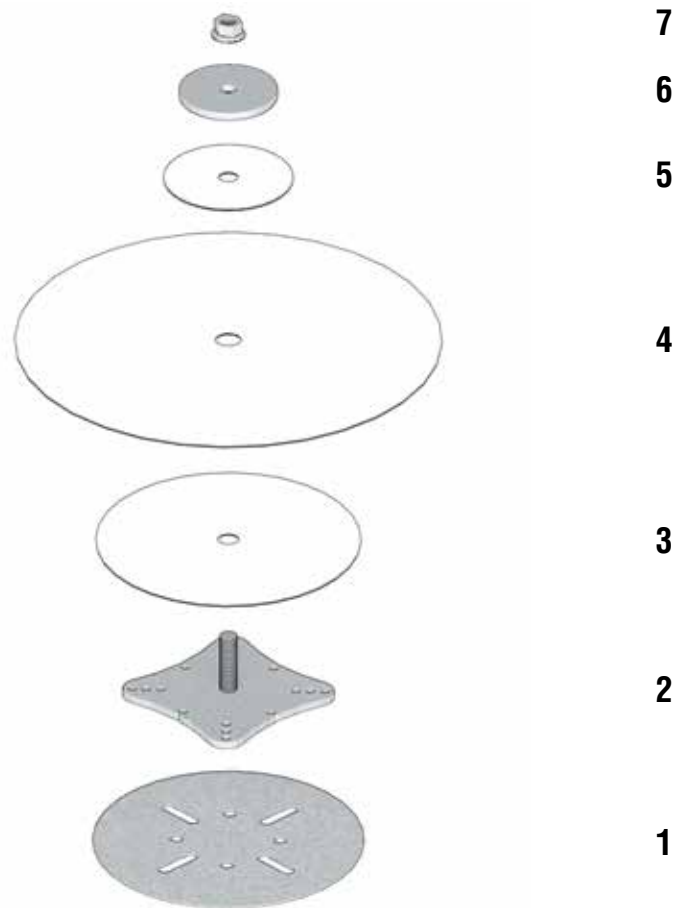
### Components of the MAPEPLAN® T ANCHORING INOX PLUS system

1. Load distribution plate 210 mm diameter for supports with low compressive strength (to be ordered separately)
2. Stainless steel base plate with M12 stainless steel threaded pin (fixed flange)
3. Lower gasket diameter 180 mm in in MAPEPLAN® T FPO/TPO membrane
4. 330 mm diameter connection patch in MAPEPLAN® T FPO/TPO membrane
5. Upper gasket diameter 60 mm in in MAPEPLAN® T FPO/TPO membrane
6. Upper washer diameter 50 mm in stainless steel (movable counter flange)
7. M12 knurled flange nut in stainless steel

Note:

Mapeplan® T Anchoring Inox Plus can also be used with PVC-P waterproofing membranes, by ordering the gaskets and the connection patch (points 3-4-5) in Mapeplan PVC-P membrane separately. For information contact the Polyglass SpA technical service.

### 3. Mapeplan® T Anchoring Inox Light



#### Components of the MAPEPLAN® T ANCHORING INOX LIGHT system

1. Load distribution underplate 210 mm diameter for supports with low compressive strength (to be ordered separately)
2. Stainless steel base plate with M10 stainless steel threaded pin (fixed flange)
3. Lower gasket diameter 180 mm in MAPEPLAN® T FPO/TPO membrane
4. 330 mm diameter connection patch in MAPEPLAN® T FPO/TPO membrane
5. Upper gasket diameter 60 mm in MAPEPLAN® T FPO/TPO membrane
6. Upper washer diameter 50 mm in stainless steel (movable counter flange)
7. M10 knurled stainless steel flange nut

Note:

Mapeplan T Anchoring Inox Light can also be used with PVC-P waterproofing membranes, by ordering the gaskets and the connection patch (points 3-4-5) in Mapeplan PVC-P membrane separately. For information contact the Polyglass SpA technical service.

## 4. Usable fixing elements

MAPEPLAN® T ANCHORING INOX PLUS has a stainless-steel base plate with 4 holes Ø 6.8 mm for normal fastening and 4 holes Ø 14 mm countersunk for heavy fastening.

MAPEPLAN® T ANCHORING INOX LIGHT has a stainless-steel base plate with 16 holes Ø 6.8 mm for normal fastening.

The fastening elements must be equipped with a countersunk or convex and rounded head, in order not to damage/punch the MAPEPLAN® T waterproofing membrane.

As a non-exhaustive example, we report a series of suitable anchors.

Fastening element	Usable with
HILTI HSL-3-SK anchor, heavy fixing for concrete	Mapeplan® T Anchoring Inox Plus
FISCHER FH II-SK anchor, heavy fixing for concrete	Mapeplan® T Anchoring Inox Plus
SFS Intec TI-T25-6,3 screw, fixing for concrete	Mapeplan® T Anchoring Inox Plus Mapeplan® T Anchoring Inox Light
SFS Intec BS-4,8 screw, fixing for corrugated metal sheet	Mapeplan® T Anchoring Inox Plus Mapeplan® T Anchoring Inox Light
SFS Intec S-T25-6,0 screw, fixing for wood	Mapeplan® T Anchoring Inox Plus Mapeplan® T Anchoring Inox Light
SFS Intec TPR-L-6,3 rivet, fixing for critical supports	Mapeplan® T Anchoring Inox Plus Mapeplan® T Anchoring Inox Light

**The Designer must determine and size the type of fixing plate and the type and quantity of suitable and necessary fixings for the specific application.**

**The fixing elements are not part of the Polyglass SpA supply.**

## 5. Assembly instructions

The assembly of MAPEPLAN® T ANCHORING INOX PLUS and MAPEPLAN® T ANCHORING INOX LIGHT must be carried out by expert and qualified personnel, with the correct equipment, especially regarding hot air thermofusion welding of the connection patch to the Mapeplan® T waterproofing membrane.

To facilitate precise positioning of the anchoring system, the base plate has reference marks.

The installation of the fastening elements (screws, expansion plugs, rivets, etc.) must be carried out in accordance with the instructions of the Manufacturer of the fastening elements.

The designer must determine and size the type of MAPEPLAN® T ANCHORING INOX PLUS or MAPEPLAN® T ANCHORING INOX LIGHT fixing plate and the type and quantity of fastening elements suitable and necessary for the specific application.

To weld the MAPEPLAN® T connection patch to the waterproofing membrane, refer to the installation instructions contained in the “Mapeplan® T FPO/TPO installation manual”, with particular reference to the cleaning procedures, preparation of the overlaps and hot air welding instruction manual.

To limit the cleaning works of the waterproofing membrane, we recommend applying MAPEPLAN® T ANCHORING INOX PLUS and MAPEPLAN® T ANCHORING INOX LIGHT as soon as possible, immediately after waterproofing the roof or tanks.

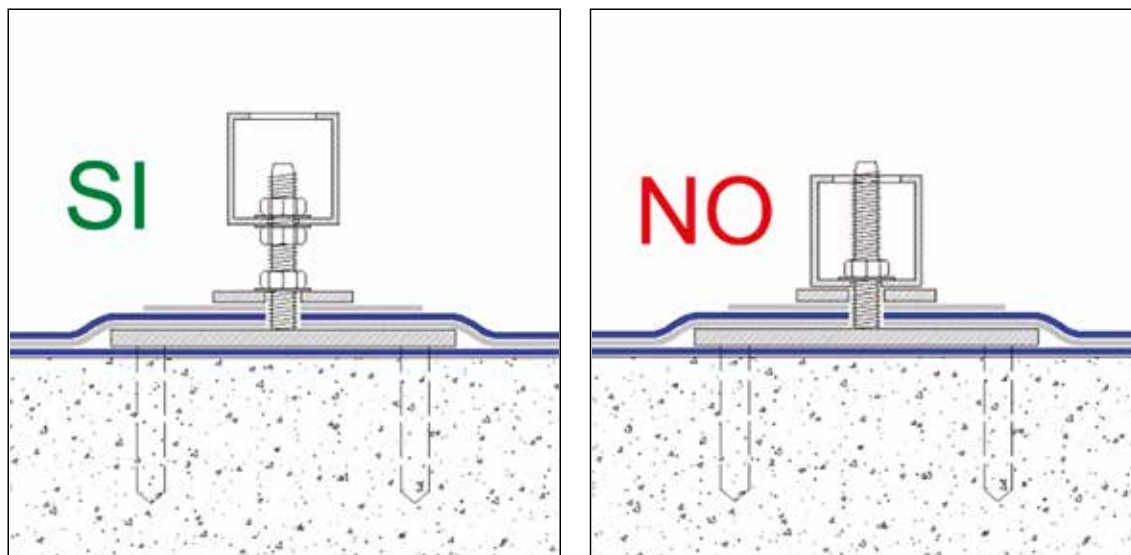
To tighten the nuts, use a torque wrench applying the recommended tightening torque.

By tightening the nut to the indicated torque, the upper washer in combination with the sealing gaskets guarantees the hydraulic seal around the threaded pin, it is therefore important to follow the correct installation sequence and above all not to interpose anything extraneous between the system components.

Tighten the nut with a torque wrench in subsequent steps, for example first tightening to 20 Nm and, after a settling period of at least 30 minutes, to the final tightening value of 40 Nm.



The anchoring of the anchoring profiles, supports, devices, machinery, structures, and various components must be carried out using the free upper part of the threaded pin, applying additional washers and nuts as required, as indicated in the figures below.



It is possible to apply rubber anti-vibration elements, for vibrating machinery, following the indications and instructions of the manufacturers of these elements.



Photo 1: Application and fixing to the support (according to project) of the stainless steel plate base, over the Mapeplan® T waterproofing membrane



Photo 2: When necessary, interpose the load distribution subplate of 210 mm diameter



Photo 3: Application of the Mapeplan® T lower gasket of 180 mm diam.



Photo 4: Application of the Mapeplan® T connection patch of 330 mm diam.



Photo 5: Application of the Mapeplan® T upper gasket of 60 mm diam.



Photo 6: Application of the upper stainless steel washer 50 mm diam. (mobile counter flange)



Photo 7: Application of the fixing nut

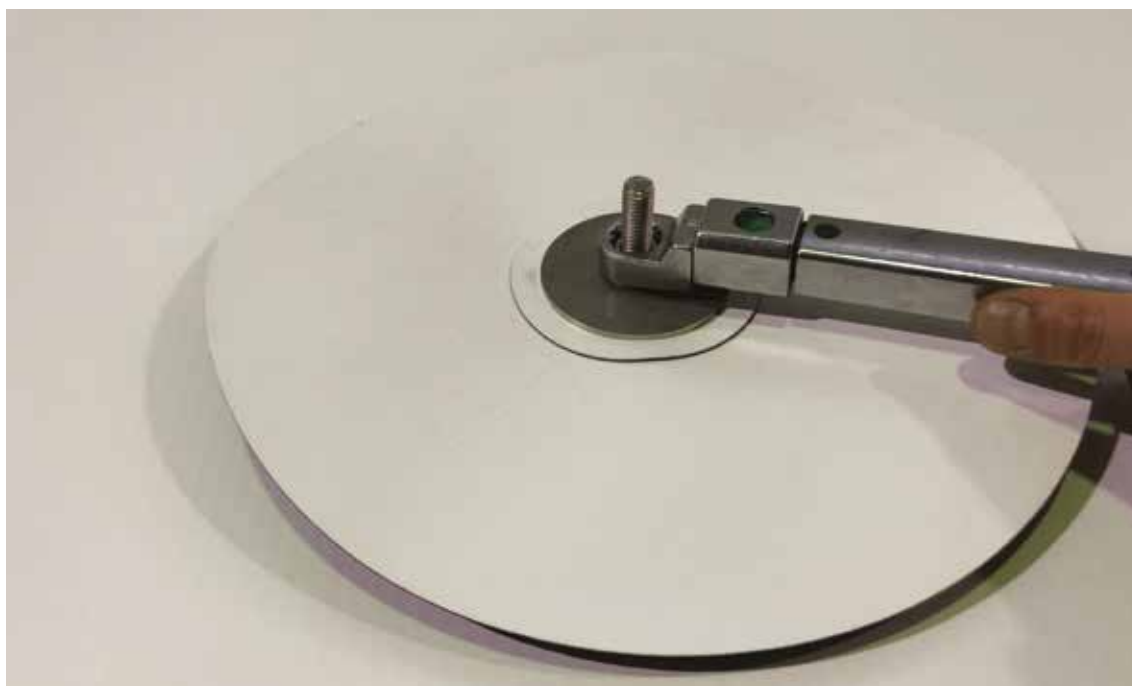


Photo 8: Tightening with a torque wrench, suggested torque 40 Nm with pre-tightening at 20 Nm

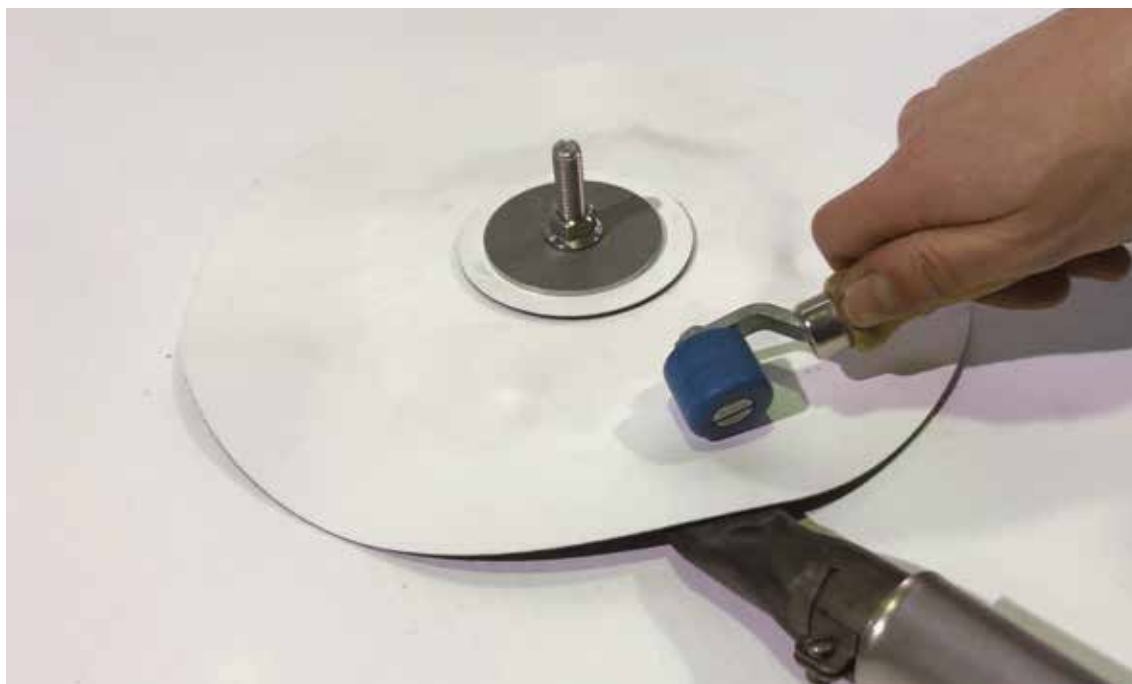


Photo 9: Hot air pre-welding of the Mapeplan® T connection patch

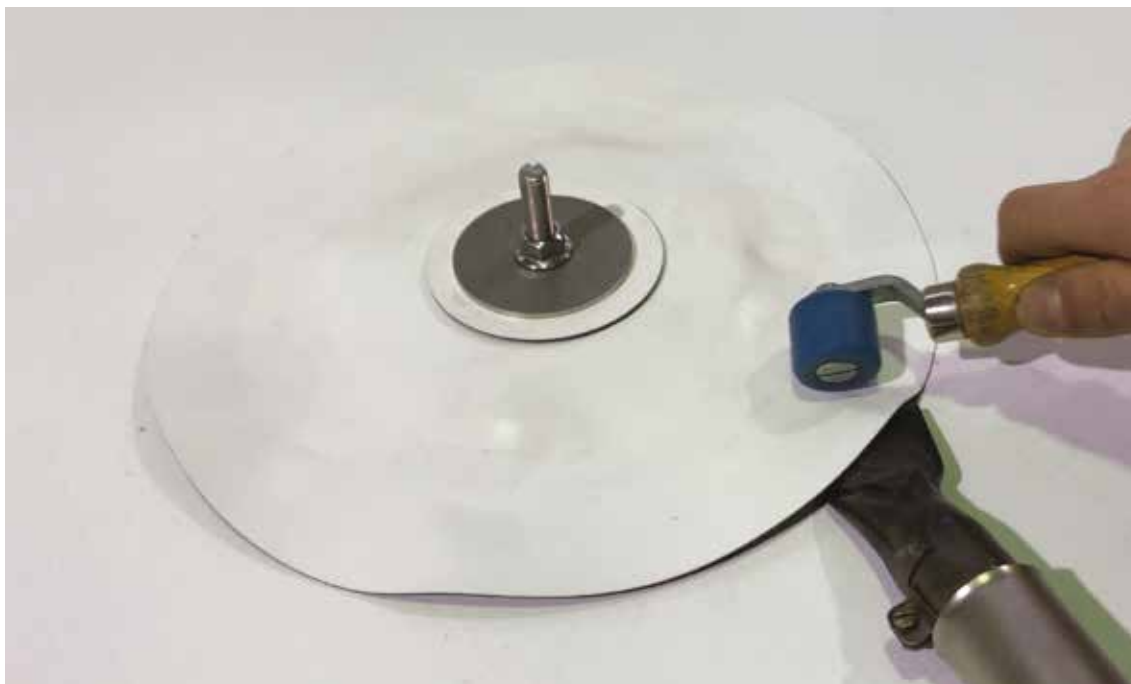


Photo 10: Final hot air welding of the Mapeplan® T connection patch

### **Disclaimer**

#### *PRODUCT FOR PROFESSIONAL USE*

*The instructions and technical details contained in this data sheet are based on our best knowledge and experience. Anyone intending to use Mapeplan® T Anchoring Inox Plus or Mapeplan® T Anchoring Inox Light must ensure that it is suitable for a correct use and application. The Designer must determine and size the type of Mapeplan® T Anchoring Inox Plus or Mapeplan® T Anchoring Inox Light fixing plate and the type and quantity of fastening elements suitable and necessary for the specific application. In any case, the applicator is solely responsible for the installation of the product and for any consequences deriving from it.*

*Always refer to the latest updated version of the technical data sheet available on the website: [www.polyglass.com](http://www.polyglass.com).*

*For any further information, please contact Polyglass SpA Technical Assistance.*

*Polyglass SpA reserves the right to make, without prior notice, any changes that may be necessary for the continuous improvement of the product.*

# Assembly Instructions

## COMPLEMENTARY ANCHORING SYSTEMS

### MAPEPLAN® T ANCHORING INOX PLUS

### MAPEPLAN® T ANCHORING INOX LIGHT

Polyglass reserves the right to modify without prior notice the characteristics of our products, to continuously improve them.



[www.mapei.com](http://www.mapei.com)

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